

WHAT IS CLAIMED IS:

1. An absorbent article, comprising:
a topsheet;
a backsheet; and
an airlaid mixture material disposed between the topsheet and the backsheet, the airlaid mixture material including a) cellulosic fibers, and b) thermoplastic fibers having a surface treated with a surfactant including a phosphate ester, a sulfate ester, or a derivative thereof;
the cellulosic fibers and the thermoplastic fibers being bonded together to form a thermally bonded airlaid matrix.
2. The absorbent article of the claim 1, wherein the phosphate ester or its derivative is selected from the group consisting of alkyl phosphate esters, alkyl phenol phosphate esters, and their derivatives.
3. The absorbent article of the claim 2, wherein the phosphate ester or its derivative includes a linear alkyl phosphate ester having a hydrocarbon chain length of from C₆ to C₂₂ in the form of an alkali salt.
4. The absorbent article of the claim 1, wherein the sulfate ester or its derivative is selected from the group consisting of alkyl sulfate esters, alkyl phenol sulfate esters, and their derivatives.
5. The absorbent article of the claim 4, wherein the sulfate ester or its derivative includes a linear alkyl sulfate ester having a hydrocarbon chain length of from C₆ to C₂₂ in the form of an alkali salt.
6. The absorbent article of the claim 1, wherein the thermally bonded airlaid matrix has dry density of from about 0.04 to about 0.11 g/cc under pressure of 20 gf/cm².
7. The absorbent article of the claim 1, wherein the thermoplastic fibers include a modified polyolefin to form a hydrogen bond or a covalent bond between the thermoplastic fibers and the cellulosic fibers.

8. The absorbent article of the claim 1, wherein the thermoplastic fibers are bicomponent fibers.
9. The absorbent article of the claim 1, wherein the airlaid material further includes an absorbent gelling material.
10. The absorbent article of the claim 9, wherein the absorbent gelling material is a hemophilic AGM.
11. The absorbent article of the claim 1, wherein the thermoplastic fibers includes from about 10% to about 30% of the thermoplastic fibers.
12. The absorbent article of the claim 9, wherein the absorbent gelling material includes from about 5% to about 50% of the absorbent gelling material.
13. The absorbent article of the claim 1, wherein the thermally bonded airlaid matrix includes first and second layers of thermally bonded airlaid matrix which are joined together, and the first layer is disposed closer to the topsheet than the second layer.
14. The absorbent article of the claim 13 , wherein the first layer has a smaller area and greater thickness than the second layer.
15. The absorbent article of the claim 14 , wherein the first layer has an edge, and the absorbent article has an embossed channel which is formed on the second layer along the edge of the first layer.
16. An absorbent article, comprising:
 - a topsheet;
 - a backsheet; and
 - an airlaid mixture material disposed between the topsheet and the backsheet, the airlaid mixture material including a) cellulosic fibers, b) thermoplastic fibers having a surface treated with an anionic surfactant, and c) from about 5% to about 50% of an absorbent gelling material;

the cellulosic fibers, the thermoplastic fibers and the absorbent gelling material being bonded together to form a thermally bonded airlaid matrix having dry density from about 0.04 to about 0.11 g/cc under pressure of 20 gf/cm².

17. The absorbent article of the claim 16, wherein the anionic surfactant is selected from the group consisting of phosphate esters, sulfate esters, and derivatives thereof.